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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,369	12/19/2001	Hideaki Ito	740819-715	4540
7590	09/28/2004		EXAMINER	
Nixon Peabody Suite 800 8180 Greensboro Drive McLean, VA 22102			HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,369

Applicant(s)

ITO ET AL.

Examiner

John Hoffmann

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 September 2004 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 10-14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8: the term "and/or" makes the claim indefinite – the most notable reason is that it makes it unclear what is required when there are two elongation positions.

Claim 10 is confusing because it depends on a cancelled claim. Line 2 "is are" is improper. There is no antecedent basis for "the second glass rod".

Claim 11. . There is no antecedent basis for "the second glass rod". Step c0 "rod rod" is improper. Step c) there is no antecedent basis for "the unified glass pipe and glass rod".

Claim Rejections - 35 USC § 103

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkey 5917109 in view of Baumgart 4820320.

Berkey clearly discloses most of the invention at figure 9, col. 7, lines 10-15 and 40-67.

However, Berkey does not teach the level of vacuum or the other parameters. Baumgart teaches that controlling the level of vacuum is important for controlling the eccentricity as well as the heat zone temperature and width (col. 9, lines 55-64). It would have been obvious to perform routine experimentation to determine the optimal pressure within the tube. It is not invention to optimize a result effective variable. Alternatively, one repeat the process so as to make another preform - and all parameters would be the same. This would result in all possible diameters would be "predetermined" diameters (such being predetermined by the previous process). Thus there would be numerous possible L2 values – and one could choose at least one to meet the claim limitation.

For claim 10: it is deem that such is the necessary result of the optimization of the variables as taught by Baumgart. Alternatively, since the variables can relate to a

second glass rod, it is deemed that the broadest reasonable interpretation is: if there is a second glass rod, then the equation needs to be satisfied. However, since Berkey does not meet the "If" requirement, then the "then" result is not necessary.

The following alternative analysis seems appropriate based on the broadest reasonable interpretation:

The phrase "so as to satisfy the following equation..." (7th line from the end of the claim) reasonably signifies an intention. Whereas, such a phrase can also reasonably convey a result, the Office interprets claims with their broadest reasonable interpretation. Presently, the expression of an intended result creates a broader claim than would the expression of an actual result. Therefore the Office interprets the claim using the broadest meaning, namely the claim requires the intention of a result. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

In other words, one can get on an airplane "so as to" go to California – one may never actually go to California.

Furthermore, it is noted that the actual value of L1 and L2 depends not only on the pressure – it depends on the tension and temperature as well. So, even if one were to set pressures as claimed, by merely changing the temperature and/or tension, one would expect the L1 and L2 values to change.

IN other words, it is deemed that claim 8 reads on methods which set the pressure reduction level so that the equation is satisfied, but further setting the temperature and tension levels so that the equation is not satisfied.

Furthermore, it would seem that the pressure limitation is met. In as much as applicant discovered a particular pressure is needed to get no bubbles, and that Berkey does not get bubbles (Berkey, col. 7, lines 8-14). Since Applicant and Berkey get the same results, one would expect that they had the same pressures.

As to the limitation that the pipe and or glass rod being elongated upstream from the point of collapse: such is an inherent result. Since the glass is collapsed, it is molten. Since a tension is applied via the drawing, the molten glass will elongate under the tension. In other words, if a force can cause the tube to begin to collapse, then a force can cause the tube to begin to elongate.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins 6301934 or Siegmund 4578096 in view of Baumgart 4820320.

Dobbins and Siegmund both show adjusting the feed rate, but neither teaches using a reduced pressure or the rate not being more than twice the feed rate. Baumgart

discloses that one can use a vacuum to assist the collapse: col. 6, lines 6-35. It would have been obvious to alter the Dobbins and/or Siegmund method by adding a vacuum assist, so that the preform collapses at a faster rate.

As to the feed rate limitations: See Siegmund col. 2: lines 55-62. A is the rate of rod, and B is the rate of the pipe. B/A starts out substantially equal to 0 (because B is initially about 0) and then progresses towards infinity as A goes to 0. Since Siegmund teaches that the ratio changes progressively, it would have been obvious that for at least some times B/A is between 0.5 and 1.0. When the $B/A = 0.5$, then the feed rate of the rod is twice that of the pipe. When $B/A = 1$, the two rates are equal. And thus when B/A is between 0.5 and 1.0, then the conditions are met.

Dobbins figure 1 shows the adjustment of both feed rates (see also col. 2, line 60). Col. 5, lines 20-35 show that the velocities depend upon the cross sectional areas (A) of the components that are used. It would have been obvious to use speeds that meet the claimed criteria for at least a portion of the Dobbins process. It would depend upon the cross sectional areas of the tube and the rod. Clearly, if one was to use a rod that has twice the area of another rod, one would have to use half the speed to make the identical preform. It is simply a matter of design choice, and what tubes one has available and/or what size one can make.

Claims 12-13 are clearly met

Claim 14: neither primary reference teaches the rotation. Col. 6 lines 7-18 of Baumgart discloses to rotate the assembly because heating is generally not

symmetrical. It would have been obvious to rotate the Siegmund/ Dobbins assembly during the processing so as to ensure even heating of the assembly.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann

9-24-04

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Primary Examiner
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jmh